



Aviation Technical Bulletin

Route to:SERVICE
MANAGERSALES
MANAGERBULLETIN
BOARD*Bringing Power to Flight*

May 19, 1995

95-2

Page 1 of 2

CHAMPION IGNITER TYPE: CH34698**ENGINE APPLICATION: ROLLS-ROYCE TRENT, RB211 SERIES**

The CH34698 igniter is a low voltage series igniter. A semi-conductive material bridges the gap between the center electrode and ground electrode, and is required for proper function of the igniter. When servicing this type of igniter, care must be taken so as not to disturb the semi-conductive material.

CLEANING:

1. Wipe combustion deposits from the exterior of the igniter assembly with a lint-free cloth.
2. If gap area deposits must be removed, do so using a WOODEN scraper, with extreme caution.

**DO NOT TOUCH SEMI-CONDUCTOR SURFACE DEPOSITS IN THE SPARK GAP AREA.
THEY AID IN THE PROPER OPERATION OF THE IGNITER.**

3. The terminal well may be cleaned with a felt swab saturated in mineral spirits or alcohol, using caution so as not to damage the electrical contact.

INSPECTION:

1. Visually check for mechanical damage. Reject the igniter assembly if there is evidence of impact damage, if the connector well insulator or the firing end insulator is cracked or loose or if the terminal electrical contact is damaged.
2. Check firing end shell for chafing, or fretting wear. This wear is not to exceed 0.38 millimeters (0.015 inches) in depth. Also, if the chafing or fretting wear is more than one-half of the circumference of the igniter metal shell, reject the assembly.
3. Reject the igniter assembly if the metal shell body is swollen or distorted.
4. Check the igniter for electrical erosion. If the erosion is equal to or exceeds the defined limits shown in the illustrations, reject the igniter assembly.



Aviation Technical Bulletin

Route to:

SERVICE
MANAGER

SALES
MANAGER

BULLETIN
BOARD

Bringing Power to Flight

May 19, 1995

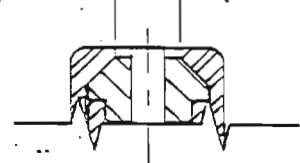
95-2

Page 2 of 2

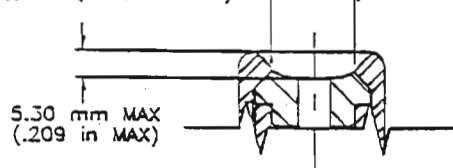
FIRING END WEAR LIMITS (See ILLUSTRATIONS for locations of features):

1. The inside diameter of the ground electrode is not to exceed:
8.33 millimeters (0.328 inches)
2. The erosion of the center electrode is not to exceed:
5.30 millimeters (0.209 inches)
below the end surface of the outer metal shell.
3. The erosion of the semi-conductive material is not to exceed:
5.30 millimeters (0.209 inches)
below the end surface of the outer metal shell.

NEW $\phi 5.08$ mm
($\phi .200$ in)



WORN $\phi 8.33$ mm MAX
($\phi .328$ in MAX)



SPARK TESTING:

WARNING: EXTREME CAUTION MUST BE TAKEN WHEN PERFORMING SPARK TESTING OF THE IGNITER ASSEMBLY. THE OUTPUT OF THE IGNITION SYSTEM IS SUFFICIENT TO CAUSE LETHAL ELECTRICAL SHOCK.

1. Spark test at normal open air pressure using the standard engine ignition exciter and ignition lead.
2. Connect the ignition unit to the igniter assembly using the standard ignition lead.
3. Clamp the igniter assembly with the firing end up.
4. Switch on the ignition exciter and wait for thirty (30) seconds. If misfiring, or irregular sparking, occurs, discard the igniter assembly.
5. Turn off the ignition unit.

WARNING: EXTREME CAUTION MUST BE TAKEN WHEN DISCONNECTING THE IGNITION SYSTEM COMPONENTS. THE IGNITION EXCITER CAN STORE ENOUGH ENERGY TO CAUSE A LETHAL ELECTRICAL SHOCK, EVEN WHEN NOT ENERGIZED. DO NOT TOUCH ANY EXPOSED (OR LIVE) PORTION OF THE IGNITION SYSTEM. ALWAYS DISCONNECT THE INPUT LEAD TO THE EXCITER, AND WAIT AT LEAST ONE (1) MINUTE TO PERMIT STORED ENERGY TO DISSIPATE BEFORE WORKING WITH THE IGNITION SYSTEM COMPONENTS.

6. Wait for at least one (1) minute to elapse. Disconnect the igniter assembly from the ignition lead and unclamp the igniter assembly.

ATB.95-2

Champion Aviation Products: Your Blueprint for Performance